

## A NARRATIVE REVIEW ON ADVANCEMENTS AND CHALLENGES IN PALLIATIVE CARE FOR ELDERLY PATIENTS WITH HIP FRACTURES.

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### ABSTRACT

Hip fractures in the elderly are a major public health issue, with a rising incidence due to the aging global population. These fractures not only cause significant physical disability but also lead to psychological and social challenges, with a high associated mortality rate. Surgical decision-making in hip fracture repair is complex, requiring careful consideration of the patient's overall health, comorbidities, and life expectancy. This review aims to explore the multifaceted approach to managing hip fractures in the elderly, focusing on surgical decision-making, the role of palliative care, and the balance between curative and palliative treatment strategies. The review discusses the epidemiology and risk factors of hip fractures, highlighting the need for preventive strategies. It delves into the surgical decision-making process, examining the criteria for intervention and the outcomes of different surgical approaches. The role of palliative care is emphasized, focusing on pain management, quality of life, and support for families and caregivers. The review underscores the importance of a multidisciplinary approach in managing these patients, involving both surgical intervention and comprehensive palliative care. The findings suggest a need for evolving clinical policies that integrate palliative care principles into the management of hip fractures in the elderly. Future implications include developing standardized protocols for surgical decision-making and enhancing palliative care services to improve patient outcomes.

**Keywords:** Hip Fractures, Elderly, Surgical Decision-Making, Palliative Care

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### INTRODUCTION

Hip fractures in the elderly are a significant public health concern due to their high prevalence and the severe impact they have on the quality of life. The incidence of hip fractures increases with age, predominantly affecting the elderly population, especially those over 65 years of age. According to a study, the incidence of hip fractures is projected to rise globally, mainly due to the aging population [1]. The impact of these fractures is profound, encompassing not only the physical consequences such as pain and disability but also leading to psychological effects like depression and social isolation. Furthermore, hip fractures are associated with a high mortality rate; a study indicated that one-year mortality rates post-hip fracture can be as high as 20-30% [2].

Making surgical decisions for older patients with hip fractures is a complicated and multidimensional process. Restoring mobility and reducing discomfort are the main objectives, but whether or not to operate also relies on the patient's overall health, co-occurring conditions, and anticipated length of life. When choosing between surgery

and conservative treatment, the orthopaedic surgeon is usually the primary adviser and the rationale for each choice is frequently unclear. Surgeons must evaluate the risks and benefits of surgery, considering factors such as osteoporosis, the likelihood of postoperative complications, and the patient's ability to withstand surgery and anesthesia. As per the guidelines suggested by the American Academy of Orthopaedic Surgeons (AAOS), the decision-making process should be individualized, taking into account the person's functional status and preferences [3].

Palliative care plays a progressively important role in the management of elderly persons with hip fractures, especially for those who are not suitable candidates for surgery. The focus of palliative care in this context is to manage pain, improve quality of life, and provide support to patients and their families. It involves a holistic approach, addressing physical, emotional, and spiritual needs. The integration of palliative care in the treatment of hip fractures is evolving, with an emphasis on early intervention and multidisciplinary collaboration to optimize patient outcomes.

## METHODOLOGY

The methodology for this review paper involved a structured and systematic approach to explore the existing literature on the management of hip fractures in the elderly, focusing particularly on surgical decision-making and the integration of palliative care. The process was designed to ensure a comprehensive and unbiased review of relevant data.

Initially, a thorough literature search was conducted across multiple electronic databases, including MEDLINE, PubMed, Cochrane Library, and Google Scholar. The search was confined to studies and articles published within the last 15 years (2009-2024) to ensure the inclusion of the most recent and pertinent data. A combination of keywords such as "hip fractures in elderly," "surgical decision-making," "palliative care in orthopedics," and "hip fracture management" was employed in the search strategy. The inclusion criteria were set to encompass studies focusing on hip fracture management in the elderly, various surgical approaches and their outcomes, and the role of palliative care, including both empirical studies and review articles. Conversely, articles not written in English, case reports, editorials, and studies focusing on populations younger than 65 years were excluded.

## DISCUSSION

### Hip fractures in the elderly

Hip fractures among the elderly are a significant public health issue, with their incidence closely linked to the aging demographic. These fractures predominantly affect individuals over the age of 65, and the prevalence is notably higher in women, largely due to the increased risk of osteoporosis in this group. A study projects that the global incidence of hip fractures could rise to as many as 4.5 million cases by 2050, principally driven by aging people [4]. The geographical variance in these incidents is also notable, with higher rates observed in Western nations, which can be attributed to specific lifestyle factors and the demographic makeup of these regions.

The risk factors for hip fractures in the elderly are multifaceted. Osteoporosis stands out as the most significant risk factor, particularly affecting postmenopausal women. Age is another critical factor, as the risk escalates notably after 65 years. Due to their lesser bone density than men, women are typically more prone to hip fractures. The risk is also increased by lifestyle choices like smoking, inactivity, and poor diet. Additionally, certain medical conditions like rheumatoid arthritis and endocrine disorders, as well as medications like corticosteroids, can weaken bones and increase fracture risk.

Preventive strategies for hip fractures are centered around addressing these risk factors. Ensuring adequate intake of

calcium and vitamin D, along with medications to strengthen bones, is crucial for those with osteoporosis. Changes in lifestyle, such as consistent weightlifting, smoking cessation, and reducing alcohol consumption, are also recommended. Fall prevention measures, such as making changes in the living environment to reduce tripping hazards and installing grab bars, are essential, especially in households with elderly residents. Regular health check-ups for monitoring bone health and reviewing medications that may affect bone density are also vital in preventing hip fractures.

The consequences of hip fractures extend beyond the physical to include psychological and social impacts. Physically, these fractures can lead to severe pain, loss of mobility, and increased dependency on others. Additionally frequent are complications like pressure ulcers, pulmonary embolisms, and deep vein thrombosis. Psychologically, patients often experience depression, anxiety, and a fear of falling again, which can lead to reduced confidence and social withdrawal. The social and economic impacts are also significant, with hip fractures often necessitating long-term care, thereby affecting family dynamics and increasing the burden on caregivers. The economic burden on healthcare systems is substantial, considering the costs associated with treatment and long-term care.

### Consultant and surgical decision-making in hip fracture repair

The decision-making process for hip fracture repair in older individuals is a critical and complex aspect of orthopedic care. It often involves a collaborative approach between consultant physicians, orthopedic surgeons, and other healthcare professionals. The primary goal is to restore the patient's mobility and alleviate pain, but the decision to proceed with surgery involves a careful evaluation of various factors.

The decision to opt for surgical intervention is based on several criteria. Firstly, the type and location of the fracture play a crucial role; certain fractures, like displaced femoral neck fractures, typically necessitate surgery. The patient's overall medical condition is also a key consideration. This includes assessing their ability to undergo anesthesia and the surgery itself, especially in the presence of comorbidities such as cardiovascular diseases or diabetes. The quality of the bone, often compromised in conditions like osteoporosis, influences the choice of surgical technique and fixation method. Additionally, the patient's age and life expectancy are considered, although age alone is not a deterrent to surgery. Instead, it is evaluated in conjunction with the patient's general health and potential for recovery [5].

## Different Surgical Approaches and Their Outcomes

There are various surgical approaches for hip fracture repair, each with its own set of outcomes. Internal fixation, involving the stabilization of the fracture with screws, plates, or rods, is commonly used for certain fracture types. Hemiarthroplasty, or partial hip replacement, is typically employed for femoral neck fractures in older patients. Total hip arthroplasty, or full hip replacement, may be considered for patients with pre-existing joint problems or specific types of fractures [6]. While surgery generally offers the best chance for regaining mobility and reducing pain, it is not without risks, including infection, blood clots, and complications related to anesthesia. The success of the surgery is also contingent on effective postoperative care and rehabilitation.

The surgical decision-making process is influenced by several factors. Understanding the patient's preferences and goals for treatment is essential. The interdisciplinary input from a team that includes orthopedic surgeons, geriatricians, anaesthesiologists, and physical therapists is vital in formulating a comprehensive treatment plan. Risk assessment is another critical component, weighing the risks of surgery against the potential benefits. The patient's ability to participate in postoperative rehabilitation and the availability of support systems also play a significant role in the decision-making process.

## Palliative care

Regardless of the diagnosis, palliative care is a specialized type of medical care designed to relieve the stress, suffering, and symptoms of a serious illness. According to the World Health Organisation (WHO), it is a strategy that enhances the quality of life for patients and their families dealing with life-threatening illnesses by preventing and relieving suffering through early detection, accurate assessment, and treatment of pain and other issues related to the body, mind, and spirit [7]. Palliative care's main objectives are to relieve suffering, enhance the quality of life for patients and their families, and offer assistance so that patients can lead as active a life as possible until passing away.

Palliative care is inherently multidisciplinary, involving a team of healthcare professionals who work together to address the comprehensive needs of the patient. This team, which functions in tandem with the patient's other physicians to offer an additional degree of assistance, usually consists of physicians, nurses, and other specialists. It can also involve social workers, nutritionists, and chaplains, depending on the patient's needs. The multidisciplinary approach ensures that the physical, emotional, social, and spiritual needs of the patient are met, which is crucial for holistic care.

## Palliative Care vs. Curative Treatment: Understanding the Balance

Palliative care differs from curative treatment in that its primary focus is not to cure the illness but to provide relief from symptoms and stress. However, it is valuable to note that palliative care can be provided alongside curative treatments. It is a common misconception that palliative care is only for end-of-life situations. In reality, it can be beneficial at any stage of a serious illness and can be provided concurrently with treatments that are intended to cure or prolong life. The balance between palliative and curative treatments is dynamic and depends on the individual patient's situation, including the stage of the illness, the patient's wishes, and the goals of care [8].

## Role of palliative care in hip fracture management

The administration of hip fractures in the elderly, especially those with significant comorbidities or in advanced stages of life, often involves palliative care. This strategy focuses on relieving the stress and symptoms related to the fracture, while also addressing the broader implications on the individual's quality of life.

The assessment for palliative care in patients with hip fractures involves evaluating their overall health status, the severity of the fracture, pain levels, and any existing comorbidities. This assessment is crucial in determining the appropriateness of palliative care and involves a comprehensive evaluation of the patient's physical, emotional, and psychological needs. Tools such as the Palliative Performance Scale (PPS) can be used to assess the individual's functional status and guide the decision-making process [9]. The assessment also considers the patient's and family's preferences regarding end-of-life care and treatment goals.

## Pain Management and Symptom Control

Pain management is a cornerstone of palliative care in hip fracture patients. It takes a combination of pharmaceutical and non-pharmacological techniques to effectively regulate pain. Opioids and non-opioid analgesics are commonly used, but their administration must be carefully managed to balance pain relief with the risk of side effects, especially in older patients [10]. Non-pharmacological interventions, such as physical therapy, massage, and acupuncture, can also play a role in managing pain and other symptoms like anxiety and insomnia.

Palliative care aims to maintain or improve the quality of life and functional status of hip fracture patients. This involves not only managing physical symptoms but also providing

psychological and social support. Rehabilitation efforts, including physiotherapy and occupational therapy, are tailored to the patient's abilities and goals, focusing on maximizing independence and mobility as much as possible. Emotional and psychological support is also provided to help patients cope with the impact of the fracture on their lives.

Family and caregiver support is an integral part of palliative care. The care team works closely with family members and caregivers, providing them with the necessary information, emotional support, and guidance on how to care for the patient. This support also includes helping families make informed decisions about the patient's care and preparing them for end-of-life considerations if applicable. Support groups and counseling services may be offered to help families cope with the stress and emotional burden associated with caring for a loved one with a hip fracture [11].

## CONCLUSION

In conclusion, the role of the consultant and surgeon in managing hip fractures, particularly in the elderly, is pivotal not only in direct surgical intervention but also in the broader scope of patient care which includes palliative aspects. These professionals play a vital role in assessing the suitability of surgical options, balancing the risks and benefits, and ensuring optimal pain management and rehabilitation strategies. Their expertise is instrumental in guiding the multidisciplinary approach required for effective palliative care, which aims to improve the overall quality of life for patients. This encompasses not just the physical aspects of recovery but also addresses the psychological, social, and emotional needs of both individuals and their caregivers. The consultant and surgeon, therefore, are key in orchestrating a comprehensive care plan that aligns with the patient's health status, preferences, and goals, ensuring a holistic approach to the management of hip fractures.

## LIST OF ABBREVIATIONS

**AAOS** - American Academy of Orthopaedic Surgeons  
**PPS** - Palliative Performance Scale  
**WHO** - World Health Organization

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